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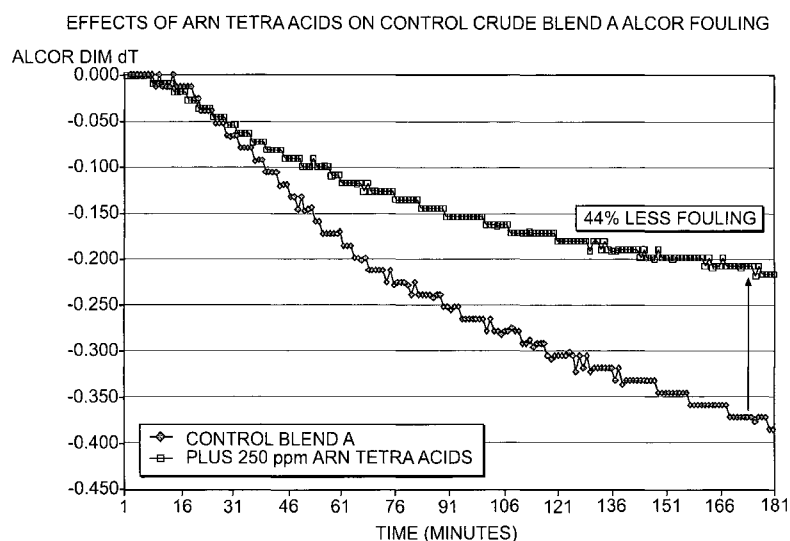
(54) Title: ADDITION OF HIGH MOLECULAR WEIGHT NAPHTHENIC TETRA-ACIDS TO CRUDE OILS TO REDUCE  
WHOLE CRUDE OIL FOULING

FIG. 4

(57) Abstract: High molecular weight naphthenic tetra-acids are added to a base crude oil to prevent and/or reduce fouling of crude oil refinery equipment. The method includes adding an effective amount of a high molecular weight naphthenic tetra-acid to the base crude oil to form a crude oil mixture and feeding the crude oil mixture to a crude oil refinery component. Particularly, the high molecular weight naphthenic tetra- acids include ARN acids.



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